

C1
toxoid, and (c) elicits, in a mammal, an immunological response that is protective against type F botulinum toxin.

C2
Sub G2
7. (Three Times Amended) A polypeptide composition [for use in manufacture of a vaccine, said composition] comprising:

- (1) an isolated polypeptide according to claim 3 [free of toxin activity and capable of inducing in a mammal, protective immunity against a botulinum toxin]; and
- (2) [a] an isolated polypeptide that facilitates or enhances purification of the composition.

C3
Sub G3
8. (Twice Amended) A polypeptide composition [according to claim 7 wherein the composition comprises a] comprising an isolated fusion protein of (1) a sequence of amino acids corresponding to a fragment or a derivative of a heavy chain of a type F botulinum neurotoxin, which polypeptide is (a) free of botulinum toxin activity, (b) is free of toxoid, and (c) elicits, in a mammal, an immunological response that it protective against type F botulinum toxin, and (2) a polypeptide that facilitates or enhances purification of the composition.

Sub H5
C4
9. (Twice Amended) A polypeptide composition according to Claim 7 [comprising:
(1) an isolated polypeptide according to claim 2; and
(2) an] wherein said isolated polypeptide that facilitates or enhances purification of the composition is a polypeptide that binds a chromatography column.

10. (Twice Amended) A polypeptide composition according to Claim [7] 9 [comprising a polypeptide adapted to bind to] wherein said chromatography column is an affinity chromatography column

12. (Twice Amended) A vaccine comprising a pharmaceutically acceptable carrier and a polypeptide according to claim [2] 3.

13. (Twice Amended) A recombinant DNA encoding a polypeptide according to claim [2] 3.

14. (Twice Amended) A method of producing a polypeptide according to claim [2] 3 comprising the steps of:

- (a) expressing in a host cell a DNA encoding a fusion protein, said protein being a fusion of (i) a fragment or derivative of a type F botulinum toxin, and (ii) a moiety adapted to bind to a chromatography column,
- (b) obtaining from said host cell an extract comprising the fusion protein, and
- (c) purifying the fusion protein using a chromatography column.

19. (Twice Amended) A pharmaceutical composition comprising:

- (a) a fusion protein, said protein being a fusion of (i) [a polypeptide free of toxin activity and capable of inducing protective immunity against a botulinum toxin] a polypeptide as defined in claim 3, and (ii) a polypeptide that binds to a chromatography column; and
- (b) a pharmaceutically acceptable carrier.